

What is claimed is:

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1. A wireless communication system, comprising:  
a transmitter for transmitting a signal;  
a plurality of antennas for use by one receiver;  
5 a scanner adapted to scan through the plurality of  
antennas  
and in turn provide a signal received from each of the  
plurality of antennas to the receiver and to impart a phase  
onto a received signal;  
10 a receiver having direction finding means for determining  
the bearing of a received signal in accordance with the phase  
thereof.

2. A wireless communication system according to claim 1;  
wherein a scan rate of the scanner for scanning each of the  
15 plurality of antennas is at least 100 hertz.

3. A wireless communication system according to claim 1;  
wherein a scan rate of the scanner for the plurality of  
antennas is at least 2000 hertz.

4. A wireless communication system according to claim 1;  
20 wherein the plurality of antennas are equidistant from a  
center point.

5. A wireless communication system according to claim 4;  
wherein the plurality of antennas are spaced equally apart  
around a circumference of a circle formed about said center  
25 point.

6. A wireless communication system according to claim 1; wherein the plurality of antennas comprises at least three antennae.

7. A wireless communication system according to claim 1; wherein the scanner continuously scans and connects each of the plurality of antennae in turn to the receiver for a substantially equal period of time.

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A1 8. A method for communication in a wireless communication environment, comprising:

10 providing a common transceiver with a plurality of antennas;

continuously scanning through the said plurality of antennas for a substantially fixed period of time by connecting each of the plurality of antennas in turn to a receiver in the substantially stationary wireless communication environment to impart a phase onto a received signal;

determining the bearing of the received signal in accordance with the phase thereof;

20 operating the plurality of antennas as a phased array during a transmit mode.

9. A method for communication in a wireless communication environment according to claim 8; wherein the wireless communication environment comprises a substantially stationary wireless communication environment.

10. A method for communication in a wireless communication environment according to claim 8; wherein the wireless communication environment comprises a wireless local area network.

5 11. A method for communication in a wireless communication environment according to claim 8; wherein the wireless communication environment is a cordless telephone.

12. A method for communication in a wireless communication environment according to claim 8; wherein the  
10 wireless communication environment is a cordless modem.

13. A method for communication in a wireless communication environment according to claim 8; wherein the wireless communication environment is a wireless local loop.

14. A method for communication in a wireless  
15 communication environment according to claim 8; wherein the wireless communication environment is a cellular telephone.

15. A method for communication in a wireless communication environment according to claim 8; wherein the wireless communication environment is a PCS telephone.

20 16. A method for communication in a wireless communication environment according to claim 8; wherein the wireless communication environment is a trunked mobile radio system.

17. A method for communication in a wireless  
25 communication environment according to claim 8; wherein the

wireless communication environment is a mobile satellite communications system.

18. A method for communication in a wireless communication environment according to claim 8; wherein the  
5 step of continuously scanning connects each of the plurality of antennas to the receiver at least 100 times per second.

19. A method for communication in a wireless communication environment according to claim 8; wherein the  
step of continuously scanning connects each of the plurality  
10 of antennas to the receiver at least 2000 times per second.

20. A method for communication in a wireless communication environment according to claim 8; further comprising the step of locating each of the plurality of antennas substantially equidistant from a center point.

21. A method for communication in a wireless communication environment according to claim 20; wherein the  
15 plurality of antennas are spaced equally apart around a circumference of a circle formed about the center point.